

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A transmission method used in a radio system that includes at least one base station comprising a plurality of RF heads and a plurality of subscriber terminals, at least two of which transmit access bursts to one and the same base station via different RF-heads, the access bursting activating between a subscriber terminal and a base station a connection that is established by a signal that is of a certain frequency and is sent in time slots, the method comprising:

commanding a first subscriber terminal to send the at least one base station a first signal using a determined time slot and a determined carrier frequency;

commanding a second subscriber terminal to send the at least one base station a second signal using the determined time slot and the determined carrier frequency simultaneously employed by the first subscriber terminal; and

commanding at least the second subscriber terminal to adjust a transmission moment of the second signal within the determined time slot so that the at least one base station receives the transmitted first and second signals at different moments within the same time slot.

2. (Previously Presented) The method of claim 1, wherein the transmission moment is adjusted before an actual connection is established.

3. (Previously Presented) The method of claim 1, wherein the sent command is to delay the transmission moment of the signal.

4. (Previously Presented) The method of claim 1, wherein the sent command is to advance the transmission moment of the signal.

5. (Previously Presented) The method of claim 1, wherein the sent command is to delay the transmission moment of the signal by substantially at most an 11-bit period.

6. (Previously Presented) The method of claim 1, wherein the sent command is to advance the transmission moment of the signal by substantially at most an 11-bit period.

7. (Previously Presented) The method of claim 1, wherein the transmission moment of the signal is adjusted by at most the tail bits at the beginning of the burst and the guard period at the end of the burst.

8. (Previously Presented) The method of claim 1, further comprising forming impulse responses from the signals received by the base station, the impulse responses being defined to have a length of a minimum of substantially 3 bits.

9. (Previously Presented) The method of claim 1, wherein at least two signals of the same frequency are separated from each other, the signals having been received by the base station from one and the same time slot.

10. (Previously Presented) The method of claim 9, wherein the signals are separated by training sequences of signals received at different moments.

11. (Previously Presented) The method of claim 1, further comprising:
correlating the signals received by the base station;
based on the correlation, selecting the signal with the best quality or the highest energy; and
using the selected signal as a connection-establishing signal.

12. (Previously Presented) The method of claim 1, further comprising:
correlating the signals received by the base station using a training sequence;
placing signals formed based on the correlation in windows; and
comparing the summed energies of the impulse responses of the signals placed in the windows.

13. (Previously Presented) The method of claim 1, wherein the sent command is to change the signal transmission frequency, if the signal transmitted by the subscriber terminal interferes with a signal transmitted by another subscriber terminal.

14. (Previously Presented) The method of claim 1, wherein the frequencies used in different signals are predetermined.

15. (Previously Presented) The method of claim 1, wherein the signals are transmitted by a time division multiple access method.

16. (Previously Presented) The method of claim 1, wherein the method is particularly suited for radio systems used in offices.

17. (Currently Amended) A radio system including at least one base station comprising a plurality of RF heads and a plurality of subscriber terminals, at least two of which transmit access bursts to one and the same base station via different RF-heads, the access burst activating between a subscriber terminal and a base station a connection that is established by a signal of a certain frequency sent in time slots, the radio system comprising:

means for commanding a first subscriber terminal to send the at least one base station a first signal using a determined time slot and a determined carrier frequency;

means for commanding a second subscriber terminal to send the at least one base station a second signal using the determined time slot and the determined carrier frequency simultaneously employed by the first subscriber terminal; and

means for commanding at least the second subscriber terminal to adjust a transmission moment of the second signal to be transmitted to the at least one base station within the determined time slot so that the at least one base station receives the transmitted first and second signals at different moments within the same time slot.

18. (Previously Presented) The radio system of claim 17, wherein the adjustment means adjust the transmission moment before an actual connection is established.

19. (Previously Presented) The radio system of claim 17, wherein the transmission means send a command that delays the transmission moment of the signal.

20. (Previously Presented) The radio system of claim 17, wherein the transmission means send a command that advances the transmission moment of the signal.

21. (Previously Presented) The radio system of claim 17, wherein the transmission means send a command that delays the transmission moment of the signal by substantially at most an 11-bit period.

22. (Previously Presented) The radio system of claim 17, wherein the transmission means send a command that advances the transmission moment of the signal by substantially at most an 11-bit period..

23. (Previously Presented) The radio system of claim 17, wherein the adjustment means adjust the transmission moment of the signal by at most the tail bits at the beginning of the burst and the guard period at the end of the burst.

24. (Previously Presented) The radio system of claim 17, wherein the adjustment means are located in a subscriber terminal.

25. (Previously Presented) The radio system of claim 17, further comprising correlation means for forming impulse responses from the signals received by the base station, the correlation means defining the impulse responses so that they have a length of a minimum of substantially 3 bits.

26. (Previously Presented) The radio system of claim 17, further comprising correlation means that, based on the training sequences accompanying the signals transmitted by the subscriber terminal, separate from each other at least two signals that have the same frequency and have been received from the same time slot.

27. (Previously Presented) The radio system of claim 17, further comprising correlation means that correlate the signals received by the base station and select, based on the correlation, the signal with the best quality or the highest energy, and the selected signal is then used as an actual connection-establishing signal.

28. (Previously Presented) The radio system of claim 17, further comprising correlation means that correlate the signals received by the base station using training sequences, and that place the signals formed based on the correlation in windows, and that compare the summed energies of the impulse responses of the signals placed in the windows,

whereby the interference signals and the subscriber terminal producing the interference signal can be detected.

29. (Previously Presented) The radio system of claim 17, further comprising correlation means that correlate the signals received by the base station and detect, based on the correlation, the signals interfering with the reception of the signal.

30. (Previously Presented) The radio system of claim 17, wherein the transmission means command the subscriber terminal to change the signal transmission frequency, if the signal transmitted by the subscriber terminal interferes too much with a signal transmitted by another subscriber terminal.

31. (Previously Presented) The radio system of claim 17, further comprising storage means, which store information about the frequencies already used in different signals.

32. (Previously Presented) The radio system of claim 17, wherein a time division multiple access method is used in the radio system.

33. (Previously Presented) The radio system of claim 17, wherein the base station of the radio system is an office base station.

34. (Currently Amended) A base station which receives access bursts from at least two of a plurality of subscriber terminals via different RF-heads, the access burst activating between a subscriber terminal and the base station a connection that is established by a signal of a certain frequency sent in time slots, the base station comprising:

means for commanding a first subscriber terminal to send the base station a first signal using a determined time slot and determined carrier frequency;

means for commanding a second subscriber terminal to send the base station a second signal using the determined time slot and the determined carrier frequency simultaneously employed by the first subscriber terminal; and

means for commanding at least the second subscriber terminal to adjust a transmission moment of the second signal to be transmitted to the base station within the determined time

slot so that the base station receives the transmitted first and second signals at different moments within the same time slot.